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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,447	05/02/2001	Roland M. Morley	INTL-0535-US (P10840)	7740

7590

10/24/2002

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EXAMINER

LEURIG, SHARLENE L

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 10/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Applicant(s)

09/847,447

Applicant(s)

MORLEY ET AL.

Examiner

Sharlene Leurig

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 12-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☒ Claim(s) 3 and 6 is/are objected to.
- 8) ☒ Claim(s) 1-30 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C.

121:

- I. Claims 1-11, drawn to a large format display, classified in class 313, subclass 506.
- II. Claims 12-18 and 22-30, drawn to methods of manufacturing a large format display, classified in class 445, subclass 24.
- III. Claims 19-21, drawn to an apparatus used to manufacture a large format display, classified in class 269, subclass 329.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made.

The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case a large format display can be made by first aligning emissive display modules and then soldering by bump-bonding or covering display tiles with light absorbing materials and then securing the tiles.

3. Inventions II and III are related as process and apparatus for its practice.

The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially

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different process. (MPEP § 806.05(e)). In this case the backplate can be used without tiles to provide an assembly jig.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and the search required for Group III is not required for Group I or II, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper. During a telephone conversation with Timothy Trop on Wednesday, October 02, 2002, a provisional election was made without traverse to prosecute the invention of Group I, claims 1-11. Affirmation of this election must be made by applicant in replying to this Office action. Claims 12-30 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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***Examiner's Notes***

The following typographical error occurs in the application:

Page 5, line 12 of the specification should read "may be assembled."

Appropriate correction is required.

***Claim Objections***

8. Claims 3 and 6 are objected to because of the following informalities:

Line 3 of Claim 3 should read "one or more emissive elements."

Claim 6 should read "wherein said backplate removeably connects said modules to said backframe."

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

10. Claims 1-6 and 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Matthies et al. (6,370,019). Matthies discloses a large format display comprising a plurality of emissive display modules (Figure 1, elements

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122 and 124). Each module has at least two alignment elements in the form of "matching connectors" (column 6, line 49) that mate with alignment devices on the backframe (Figure 9, element 904). The module has a backplate (Figure 2, element 130) on which the alignment elements are formed (column 6, line 50). A driver chip is located on the back surface of the display tile (Figure 7, element 134) and numerous emissive elements are formed on the front surface of the display tile (Figure 7, element 708). Matthies discloses fasteners extending from the backplate to attach it to the backframe (column 6, line 35). These fasteners may comprise connectors which allow the backpanel to be "plugged into" the backframe, thereby engaging elements on the backframe to secure the backframe to the modules (column 6, line 37). The option of plugging connectors into the backframe allows the backpanel to be removeably connected to the backframe to permit "the repair and replacement of the individual tiles" (column 6, line 39).

As can be seen in Figure 6B, each module has a transparent layer 322 (column 9, line 20) and a plurality of spaced apart light emissive cells, elements 324, formed on the transparent layer, and separated by defining regions. Matthies discloses the deposition of a black, optically absorbing material "in all areas where metal electrodes will be later deposited" before placement of the row electrodes (column 10, line 63). Since the row electrodes (Figure 6B, element 328) extend between the emissive cells, the optically absorbent material overlays the region between the cells. Figure 8, element 802 shows the bead seal along the periphery of each module between adjacent modules. The

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optically absorbing masking layer (Figure 8, element 804) covers the bead seals that lie on the peripheral gaps between adjacent modules so when the tiled display is viewed from the top, no seal is seen.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matthies et al. (6,370,019). Matthies discloses fasteners extending from the backplate to attach it to the backframe, as discussed above, but lacks the specific type of a threaded fastener. However, the applicant's disclosure fails to show the use of threaded fasteners to solve any of the stated problems or yield any unexpected results that are not within the scope of the teachings applied. Consequently, the use of threaded fasteners is considered to be an obvious matter of design choice.

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matthies et al. (6,370,019) in view of Lechner (6,190,172). Matthies discloses a tiled display with all the limitations discussed above but lacks optically clear adhesive between adjacent modules. However, Matthies discloses modules connected by mullions (column 6, line 21) as well as the need for the tiles to be arranged so that there are no visible seams (column 6, line 15). Lechner teaches

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the use of optically clear adhesive to bond connecting tabs to display screens of a multi-screen display so as not to interfere with the display (column 11, line 21). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Matthies' tiled display with optically clear adhesive instead of mullions to connect adjacent tiles while avoiding pronounced seams between tiles.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharlene Leurig whose telephone number is (703)305-4745. The examiner can normally be reached on Monday through Friday, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703)305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7382 for regular communications and (703)308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Sharlene Leurig  
October 18, 2002

SL



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